Title:

SYSTEMS, FUNCTIONAL DATA, AND METHODS TO PACK N-DIMENSIONAL DATA

## IN THE CLAIMS

Please amend the claims as follows.

- (Currently Amended) A navigational device, comprising: 1.
  - a processor;
  - a memory in communication with the processor;
  - a display in communication with the processor;
  - compression and decompression instructions embedded on the processor;

wherein the device uses the memory in cooperation with the processor and the compression and decompression instructions to compress a plurality of coordinate data into reduced sizes relative to original sizes of the coordinate data and associate at least a portion of activation data with each coordinate data, each coordinate data having three or more dimensions and each portion of the activation data identifying one of the three or more dimensions; and

wherein at least a portion of the coordinate data is dynamically communicated to the display.

- 2. The device of claim 1, further comprising an interface device operable to (Original) audibly communicate at least a portion of the coordinate data.
- 3. (Currently Amended) The device of claim 1, wherein each dimension includes a coordinate change value relative to a previous coordinate's direction and the coordinate change is identified as a desired size for which to delta size associated with an optimal size to compress each coordinate data.
- (Currently Amended) The device of claim 3, wherein at least one of the coordinate data 4. exceed the change value delta size associated with compressing the at least one coordinate data and wherein associating one or more special escape data character sequences to ensure data

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ensures the at least one coordinate data are compressed-within the desired delta size associated with the coordinate data.

- 5. The device of claim 4, wherein: (Original) each dimension is associated with a direction; and
- if each direction within each dimension of each associated coordinate data proceeds in a same direction then using a single sign data for each dimension to compress each coordinate data.
- The device of claim 1, wherein at least one of the dimensions is 6. (Original) associated with attribute data relating to at least one of the other dimensions.
- The device of claim 1, wherein the device is a handheld portable device. 7. (Original)
- The device of claim 1, wherein the memory is remote from the processor. 8. (Original)
- 9. (Currently Amended) A navigation system, comprising:
  - a mass storage device adapted to store navigation data;
  - a server adapted to communicate with the mass storage; and
- compression and decompression instructions embedded on a processor of a navigation

## device; and

the a navigation device adapted to communicate with and retrieve navigation data from the server via a communication channel, wherein the navigation device includes a the processor in communication with a memory, wherein the compression and decompression instructions of the processor and memory cooperate to compress at least three dimensional data into reduced sizes relative to original sizes associated with the at least three dimensional data, and wherein the at least three dimensional data is associated with the navigation data and activation data, and wherein each one of the at least three dimensional data is associated with a portion of the activation data.

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10. (Original) The system of claim 9, wherein the communication channel includes a wireless channel.

- The system of claim 9, wherein the activation data are configurable to 11. (Original) activate or deactivate each dimension within the at least three dimensional data of the navigation data.
- The system of claim 11, wherein the navigation data are compressed 12. (Original) within the memory.
- 13-24. (Canceled).
- 25. (Currently Amended) A navigational device, comprising:
  - a memory;
  - a display;

compression and decompression instructions embedded in a processor;

the a processor that cooperates with the memory using the compression and decompression instructions to compress navigation data having three or more dimensions wherein the navigation data includes control data and coordinate data, wherein each unique portion of the control data maps to one of the three or more dimensions; and

a Global Positioning Satellite (GPS) receiver that cooperates with the processor and provides to the processor specific values for coordinate data, wherein the processor maps matches the specific values with portions of the compressed navigation data using the control data and dynamically decompresses those mapped matched portions into larger and their original sizes, which is larger than compressed sizes, and communicates the decompressed matched portions to the display.

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26. (Original) The navigational device of claim 25, wherein the navigation device is a portable digital assistant.

- 27. (Currently Amended) The navigation device of claim 25, wherein the navigation data also includes attribute data within one or more of the three or more dimensions, and wherein the attribute data drives presentation effects of the decompressed matched portions on the display.
- 28. (Original) The navigation device of claim 25, wherein the navigational device transmits the decompressed matched portions to an external device.
- 29. (Original) The navigational device of claim 25, wherein each of the three or more dimensions include cartographic data.
- 30. (Original) The navigational device of claim 25, wherein the decompressed match portions represent in least in part a current position of the device within a route that the device is traveling along.
- 31. (Original) The navigational device of claim 25 further comprising an audio device in cooperation with the processor, wherein the audio device communicates at least a part of the decompressed matched portions audibly.
- 32. The navigational device of claim 25 wherein at least one of the three or (Original) more dimensions associated with the decompressed matched portions includes landmark data proximate to the navigational device.